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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/063,792	05/13/2002	Philippe Schottland	GEPL.P-051	1633
43247	7590	12/30/2005	EXAMINER	
OPPEDAHL & LARSON LLP - LEXAN PO BOX 5068 DILLON, CO 80435			PATTERSON, MARC A	
			ART UNIT	PAPER NUMBER
			1772	
DATE MAILED: 12/30/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/063,792	Applicant(s) SCHOTTLAND, PHILIPPE	
	Examiner Marc A. Patterson	Art Unit 1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 05 October 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-23, 28-41 and 78-80 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23, 28-41 and 78-80 is/are rejected.
- 7) ☒ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### WITHDRAWN REJECTIONS

1. The 35 U.S.C. 103(a) rejection of Claims 4, 7, 17, 20, 34, 37 as being unpatentable over Kozak et al (U.S. Patent No. 5,660,497) in view of Cornell et al (U.S. Patent No. 3,873,390) and Spohr (European Patent No. 1,059,237), of record on page 2 of the previous Action, are withdrawn.

### NEW REJECTIONS

#### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 – 3, 5 – 6, 8 – 10, 13 – 16, 18 – 19, 21 – 23, 30 – 33, 35 – 36 and 38 – 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kozak et al (U.S. Patent No. 5,660,497) in view of Cornell et al (U.S. Patent No. 3,873,390) and Spohr (European Patent No. 1,059,237).

With regard to Claims 1 and 28 – 29, Kozak et al disclose an article (sign; column 4, lines 30 – 31) comprising a molded body (column 7, lines 32 – 34) formed from a plastic composition having an index of refraction of 1.6 (column 4, lines 50 – 51) and a fluorescent material (fluorescent glass, therefore photoluminescent and having a fluorescent dye; column 4, lines 23 – 25) wherein the article has a graphic image (shape; column 4, line 36) formed as protrusions on a

surface thereof (the reflection of the image is enhanced by providing spheres which are embedded half – way in the medium comprising the sign and therefore are protruding from the medium and are therefore in the plastic composition; column 4, lines 63 – 66) and therefore provide a luminescent visual effect in the shape of the graphic image. Kozak et al fail to disclose an article which is a bottle having an annular portion and comprising a bottle having a bottom and a sealable top portion and an integrally molded handle.

Cornell et al teach that signs and labels are equivalent as photoluminescent articles (photoluminescent films are used interchangeably in both applications; column 1, lines 50 – 51) for the purpose of obtaining articles having long glow life (column 1, lines 60 – 61).

Spohr teaches the application of a label (column 4, lines 22 – 24) to a bottle (column 4, lines 22 – 24) having a sealable top portion (cap; column 2, lines 48 – 50) and annular body portion (cylindrical in cross section; column 3, lines 6 – 9) and integrally molded handle (column 1, lines 37 – 40) for the purpose of forming a complete container (complete package; column 4, lines 22 – 24). One of ordinary skill in the art would therefore have recognized the advantage of providing for the label of Cornell et al in Kozak et al depending on the desired glow life of the end product as taught by Cornell et al, and of providing for the label of Kozak et al and Cornell et al to the labeled bottle of Spohr, thus obtaining an article having a substantially annular body portion and comprising a bottle having a bottom and a sealable top portion and an integrally molded handle, depending on the desired completeness of the container as taught by Spohr.

It therefore would have been obvious for one of ordinary skill in the art at the time Applicant's invention was made to have provided for a label in Kozak et al in order to obtain an article having a long glow life as taught by Cornell et al and to have provided for a labeled bottle

in Kozak et al in order to obtain a complete container as taught by Spohr, thus obtaining an article in the form of a bottle, the label, having a graphic image as a result of the photoluminescent material that is part of the plastic composition.

With regard to Claims 2, 9, 22, 30 and 32, the fluorescent material disclosed by Kozak et al comprises an organic fluorescent dye comprising xanthene (pigment comprising xanthene; column 7, lines 24 – 26).

With regard to Claims 3, 5 – 6, 8, 10, 16, 18 – 19, 21, 23, 33, 35 – 36 and 38, Kozak et al fail to disclose a dye having a concentration of 0.1% to 0.005% and 0.0001 to 0.0003% by weight and a dye providing a red or blue visual effect and a photoluminescent material comprising a material of nanosize. However, Kozak et al disclose a fluorescent dye having a concentration of at least a fraction of 1% fluorescent dye (the material comprises fluorescent dye; column 7, lines 24 – 26) and particle size of 2 mm (column 9, lines 44 – 45) and teaches the selection of concentration and color of the dye (column 6, line 41) based on workability and cost (column 6, line 37). Therefore one of ordinary skill in the art would have recognized the utility of varying the concentration and color and particle size of the dye to obtain a desired workability and cost. Therefore, the workability and cost would be readily determined through routine optimization of concentration and color and particle size of the dye by one having ordinary skill in the art depending on the desired end use of the product.

It therefore would be obvious for one of ordinary skill in the art to vary the concentration and color and particle size of the dye in order to obtain a desired workability and cost, since the workability and cost would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end result as shown by Kozak et al.

With regard to Claims 14 – 15, and 31, the plastic disclosed by Kozak et al is polycarbonate (column 7, lines 31 – 32).

With regard to Claims 13 and 39, the images disclosed by Kozak et al are formed from protrusions having a height of 1 mm (the spheres are beads having a diameter of 2 mm; column 9, lines 44 – 45).

With regard to Claims 78 – 80, Kozak et al fail to disclose an image which comprises cuts. However, Kozak et al disclose shapes other than spheres are equally employable (column 4, lines 34 – 37). It would have been an obvious matter of design choice to have provided for flat shapes, therefore cuts, in Kozak et al, since such a modification would have involved a mere change in shape. A change in shape is generally recognized as being within the level of ordinary skill in the art. *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

4. Claims 4, 7, 17, 20, 34, 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kozak et al (U.S. Patent No. 5,660,497) in view of Cornell et al (U.S. Patent No. 3,873,390) and Spohr (European Patent No. 1,059,237) and further in view of Madalo (U.S. Patent No. 3,573,472).

Kozak et al, Cornell et al and Spohr disclose a label comprising a fluorescent dye as discussed above. With regard to Claims 4, 7, 17, 20, 34, 37, Kozak et al, Cornell et al and Spohr fail to disclose a fluorescent dye which provides a blue or red visual effect.

Madalo teaches that it is well known in the art to select the color of a fluorescent dye depending on the suitability of the fluorescent dye for viewing in a desired color of visible light (when photoluminescent materials are used for symbols, reading symbols under visible light is, of course, simply effected by adding a suitable color, therefore dye; column 3, lines 39 – 46) in the

making of a label (column 4, lines 6 – 10) for the purpose of obtaining a label that is highly efficient (column 3, lines 49 – 52). One of ordinary skill in the art would therefore have recognized the advantage of providing for the selection of color of Madalo in Kozak et al, Cornell et al and Spohr, which comprises a label, depending on the desired efficiency of the end product.

It therefore would have been obvious for one of ordinary skill in the art at the time Applicant's invention was made to have provided for the selection of the color in Kozak et al, Cornell et al and Spohr in order to obtain a label which is efficient as taught by Madalo. Therefore, one of ordinary skill in the art would have recognized the utility of varying the color to obtain the desired efficiency. Therefore, the efficiency would be readily determined by through routine optimization of the color by one having ordinary skill in the art depending on the desired use of the end product as taught by Madalo.

It therefore would be obvious for one of ordinary skill in the art to vary the color, and therefore visual effect, in order to obtain the desired efficiency, since the efficiency would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end result as shown by Madalo

5. Claims 11 – 12 and 40 – 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kozak et al (U.S. Patent No. 5,660,497) in view of Cornell et al (U.S. Patent No. 3,873,390) and Spohr (European Patent No. 1,059,237) and further in view of Lee (U.S. Patent No. 5,066,580).

Kozak et al, Cornell et al and Spohr disclose an article comprising xanthene as discussed above. With regard to Claims 11 – 12 and 40 – 41, Kozak et al fail to disclose xanthene having a quantum yield of 0.9 or greater. However, Lee teaches that xanthene has a quantum yield of 0.93 (column 1, line 24). A quantum yield of greater than 0.9 or greater is therefore inherent to Kozak et al, Cornell et al and Spohr.

#### ANSWERS TO APPLICANT'S ARGUMENTS

6. Applicant's arguments regarding the 35 U.S.C. 103(a) rejection of Claims 1 – 10, 13 – 23 and 28 – 39 as being unpatentable over Kozak et al (U.S. Patent No. 5,660,497) in view of Cornell et al (U.S. Patent No. 3,873,390) and Spohr (European Patent No. 1,059,237) and 35 U.S.C. 103(a) rejection of Claims 11 – 12 and 40 – 41 as being unpatentable over Kozak et al (U.S. Patent No. 5,660,497) in view of Cornell et al (U.S. Patent No. 3,873,390) and Spohr (European Patent No. 1,059,237) and further in view of Lee (U.S. Patent No. 5,066,580), of record in the previous Action, have been carefully considered but have not been found to be persuasive for the reasons set forth below.

Applicant argues, on page 6 of the remarks dated October 5, 2005, that Claim 1 has been amended to recite that the claimed photoluminescent is in the body of the bottle, rather than in a label.

However, because the claim recites a bottle having, rather than comprising, an annular portion, the claim does not exclude an annular portion on a label of a bottle.



7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc A Patterson whose telephone number is 571-272-1497.

The examiner can normally be reached on Mon - Fri 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Marc Patterson 12/27/05*  
Marc A. Patterson, PhD.  
Examiner  
Art Unit 1772